

MEMORANDUM

STP

Date: 26 August 2002

To: CRCPD Board of Directors
cc: Shawn Seeley, Bruce Hirschler, Pat Gorman

02 SEP 12 PM 4:49

From: Terry Devine, CRCPD, Ph. 502/227-4543, Fax 502/223-7026, e-mail tdevine@crcpd.org

Re: Comments on '02 Draft SSRs A, D & J, received 6 Aug. 2002

Pat Gorman asked me to review, for the Board, the 2002 draft Parts A, D & J with particular regard for the citations, comments on the previous draft, and the committee's response to those comments. Ron Fraass asked me to note any requirements that don't make sense.

I have several suggestions here for the current edition or subsequent work. Also I've passed to Bruce Hirschler a copy of the text marked to identify a number of typing and printing problems and several corrections of citations and minor changes of form that Shawn Seeley approved in a phone call Aug. 22.

We refer one format matter to the Board, whether to abbreviate units of measure in expressions of quantity. For example, in the definition of pyrophoric (A.2) 'degrees' is spelled out in the values of temperature, and of ~150 statements of quantity in Part D, ~50 have the units of measure spelled out. Abbreviations of units of measure are defined in the SSR's; why are they not used in expressions of quantity? The practice is long and widely adopted, e.g. in NCRP Reports.

Part A

1. All citations to other passages of the SSR are correct.
2. The several comments on the previous draft were implemented or otherwise addressed.

One comment of mine, I believe, was misinterpreted by the committee, so I'll rephrase it. Specific prohibitions (on hand-held and shoe-fitting fluoroscopes) seem to me out of context in Part A, which otherwise does not place constraints on radiation sources. And why are just two of several such specific prohibitions entered here? Most prohibitions are in the relevant Part, e.g. D, F, Q, X, or W.

The text for "Licensing State" still seems not quite right; 'finally' isn't the term used with 'designated,' it's 'full designation.' Shouldn't 'Product Review State' be mentioned? See attached text from *CRCPD Recognition of Licensing States*. Would a footnote citation of the publication be in order?

3. I compared the Jan. '02 text to that of the 1995 publication. The only discrepancy I noticed is that the rationale for the previous editions is needed in the '02 edition.
4. I've a few new comments.

Because of the exceptionally messy history of "NORM," wouldn't it be well to add to this definition a reference to TENORM, e.g. 'also see "Technologically enhanced.." Sec. N.3'

In the definition of radiation safety officer, would it be in order to add, 'and identified in the license'?

"Regulations of the Dept. of Transp." is in A.2, and "Reg's of the Nuclear Regulatory Commission" is in T.2. Would it be in order to add in A.2, "Regulations of the Environmental Protection Agency?" Similarly in A.3 re DOE and NRC contractors, what of EPA contractors, as at Superfund projects?

re "Residual radioactivity"....burials at the site, even if those burials were made in accordance with the provisions of Part D' Wouldn't it be in order to add, 'in effect at the time'?

Part J

1. All citations to other passages of the SSRCR are correct.
2. The few comments on the previous draft, none substantive, were implemented or otherwise addressed.
3. I compared the Feb. '02 text to that of the 1995 publication. The only discrepancy I noticed is that the rationale for the previous editions is needed in the '02 edition.
4. One passage seems to me inconsistent and unintended.

The inclusion of 'owners' in statements of regulation scope seems to conflict with provisions for ownership without possession etc. Surely a person may own a radiation machine without possessing or doing anything with it, just as in Sec. C.22f, "A general license is hereby issued to own radioactive material without regard to quantity...this does not authorize the manufacture, production, transfer, receipt, possession or use of radioactive material." This describes a category of persons who don't have a radiation source and may not know that they own one, but on whom "The regulations ... apply to all persons who...own...sources of radiation," in both J.1 and A.1 and similarly for TENORM in N.2.

Is it reasonable that Part J requires extensive activities on persons who only own a source (the category described above), not just those who receive, possess, use or transfer sources (as in Part D)?

Sec. A.4 requires a licensee to record receipt, transfer and disposal, which excludes persons who only own a radiation source; but performance of tests is required of owners in A.6 even if they don't possess the source. So, inclusion of owners in the scope of Part A seems unnecessary for the A.4 requirement and excessive for that in A.6

Part D

1. Of citations to other passages of the SSRCR, Shawn reviewed several typo corrections and passed them to Bruce. Also:

- D.2001a.i restricts the transfer of material to recipients authorized in:
D.2006, to a LLRW facility,
Part C, Rad.Mat. in general (and section number would be helpful, C.40) and
Part M, licensed LLRW disposal site
Why not also B.12 re machines as well as N.4a & d and N.8 re TENORM?
- D.2002d cites, for analyses and procedures to ensure ALARA, only Part D;
why not also N.5, 7 & 23 as well as M.19 (that I've noticed so far) ?
- D.2103, re records of surveys, cites only D.1501 (surveys in general) and
D.1906b (inspection of packages received). Why not also cite A.4 and record requirements in
Parts E, F, J, M, N, P, Q, T, W and X?
- In D.2016a.iv, why were just a & c of D1204 cited? Other paragraphs address quantitative values that
might necessarily be taken into account.
- D.2108 requires recordkeeping for some of the disposal streams. Shouldn't this also require records of
materials transferred to other licensees (D.2001a) including waste sites (D.2006) as well as record of
what was decayed in storage and its rad level upon disposal (D.2001a.ii)? Wouldn't it be better to require
records pursuant to just D.2001a, which includes the passages 2002-2005 that were cited?
- I don't see in Part M a requirement for records of disposal; it should be cited in more detail. I suppose
it's M.33g.ii.(4)
- For citations in 2205, report to the Agency of overexposure of individuals is also required in D.2202 as
well as the passages cited, i.e. D.2203, D.2004 and D.2206.

2. A few comments on the previous draft were not implemented or otherwise addressed; most were typos that
Bruce will repair, one was a bit more:

In D.1703c.vii, 'Fit testing ... periodically thereafter at a frequency not to exceed 1 year,' the terms period
and frequency are used with the reverse of their usage in science and engineering. Time, e.g. 1 year, is a
measure of period, the reciprocal of frequency. 'Fit testing frequently, at a period not to exceed 1 year,
would be in the scientific usage, if not exactly what the authors meant.

3. I compared the Feb. '02 text to that of the 1995 publication. Many new problems arose when the text was
transferred from one software-printer system to another.

The only discrepancy I noticed is that the rationale for the previous editions is needed in the '02 edition.

In App. D Sec.1 (h) last sentence, 'concentration' might better be 'specific activity' and the sentence could
well end after 'weight of waste.' Else, the text will become tangled in the many alternative units of specific
activity. And 'becquerel (nanocurie)' is not a good start, a Bq being 1/37 nCi, not 1 nCi.

4. Several passages seem to me not quite right.

- The SSR authors address tests, records, reports and notifications as quite distinct subjects, and place each in a separate section. But to the workers, supervisors, RSO's and inspectors of my acquaintance, no test or measurement was 'done' unless the associated record was written, on the particular form if so required, and all necessary reports and notifications were timely made. Each test or similar requirement is so addressed in planning, training, operations, review and inspection. Wouldn't it be better to have each test or measurement dealt with completely in a single section?
- In setting threshold values of radiation field that require dosimetry on individuals, particular attention is given to fluoroscopes (D.1502a.v). Why is this limited to medical fluoroscopes rather than all fluoroscopes of significant power?
- D.2003a.iii (1) and (2) are just one condition, not two; they should be combined into iii.
- D.2006a seems to me a separate statement of scope for the requirements in 2006 b & c, which is not the SSR's usual imperative form of who is to do what. And D.2006d seems redundant with 2006a. Rewriting seems in order.
- Appendix B of 10 CFR 20 and Part D is the source from which other tables in 10 CFR and SSR are derived. I've noticed errors in some of the derived tables; they should be thoroughly reviewed.

A column for half-lives, in 2 Sig. Fig's. I suppose, if added to App. B would facilitate checking the other table entries as well as for general reference.

What calculation in health physics or rad control proceeds from, or even concerns, the atomic number of the nuclide of interest? Wouldn't alphabetical order of nuclides in Appendices B & C better facilitate use of the data? Alphabetical order is used in App. F of Part D and in all ~7 other tables of nuclides or chemicals among the other SSR Parts.

Appendix F, Quantities for use in Decommissioning, seems to have been taken from 10 CFR 30 App. B, Quantities of Licensed Material Requiring Labelling, except that Gold-198 & 199 didn't reach Part D. A second use of this title, QuantitiesRequiring Labelling, App. C of 10 CFR 20 and Part D, are not those of 10 CFR 30 App. B but instead are derived from 10 CFR/Part D App. B values.

Part D Rationale

Attachment re Med. Fluro. workers,

- the citations are long out of date, as is "5(N-18)" on p.8
- NCRP Rept. 122, "Use of ..Monitors to Estimate Effective Dose..." should be discussed.

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**CRCPD RECOGNITION
OF LICENSING STATES
FOR THE
REGULATION AND CONTROL
OF NARM**

August 1994

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TYPES OF LICENSING STATE DESIGNATION

There are two types of Licensing States—those which receive full designation as a Licensing State, and those which receive a limited designation relating only to the regulatory control over the manufacturer and distribution of NARM sources and devices.

LICENSING STATE

A state that demonstrates the capability to effectively regulate the manufacture, distribution, possession and use of radioactive materials will be granted full designation as a Licensing State. This designation is similar to being designated an Agreement State by NRC. NARM sources and devices that are manufactured and/or distributed under a specific license issued by that state may be accepted without further review for licensing by another state. NARM licensees of that state may be granted reciprocity by other states. A state that has been granted full designation is referred to as a Licensing State.

PRODUCT REVIEW STATE

A state that does not meet the criteria for full designation but has the authority and has demonstrated the capability to effectively regulate the manufacture and distribution of NARM sources and devices may be granted a limited designation as a licensing state. Such a state is referred to as a Product Review State.

Under the Product Review State concept, a mechanism has been established whereby a state may receive the limited designation if it can demonstrate that it:

1. Evaluates a source and/or device according to relevant guidance contained in American National Standards Institute (ANSI) and NRC documents;
2. Has and exercises enforcement authority over the manufacturer and distribution of the NARM source and/or device; and
3. Has the appropriate implementing procedures (e.g., frequency of inspection, ability to conduct tests, authority to enter the site) required to maintain proper regulatory authority over the manufacture and/or distribution of the source/device.

NARM sources and devices that are manufactured under a license or permit issued by a state which has been designated as a Product Review State may be accepted for licensing without further review by another state. Users of NARM from that state should not be granted reciprocity by other states on the basis that the applicant's home state has been granted designation as a Product Review State.



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